



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,353	09/02/2004	Masayoshi Miwa	120957	9957

25944 7590 08/28/2006

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

PARKER, FREDERICK JOHN

ART UNIT PAPER NUMBER

1762

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

✓

SUPPLEMENTAL
Office Action Summary

Application No.

10/506,353

Applicant(s)

MIWA ET AL.

Examiner

Frederick J. Parker

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 1762

DETAILED ACTION

1. **This supplemental Office Action reflects additional prior art found relevant to the instant application.**

Specification

The amendments in response to the Specification Objections of the Previous Office Action are acknowledged and appreciated, and the Examiner withdraws the objections.

Claim Objections

The amendments in response to the Claim Objections of the Previous Office Action are acknowledged and appreciated, and the Examiner withdraws the objections.

1. Claim 1 is objected to because of the following informalities: Claim 1, line 4, "a" before coating agent should be "the" since "a coating agent" is already cited earlier in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The amendments in response to the 35 USC 112 rejections of the Previous Office Action are acknowledged and appreciated, and the Examiner withdraws the rejections.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Art Unit: 1762

3. Claims 12,13,16-21 are rejected under 35 U.S.C. 102(a) as being anticipated by JP 2002-221032 .

JP 2002-221032 discloses a method of applying information (alpha-numeric characters, bar codes, etc per claim 18) onto outer surfaces (fig. 2, etc) of cellular honeycomb catalyst supports made of ceramic components including cordierite, alumina, mullite LiAl Silicate, aluminum titanate, titania, zirconia, silicon or aluminum nitride, etc [0034]. The information may be applied by stamping (inherently a transfer method), laser, ink jet printing, etc [0022-23] per claim 19-20. The applied information, in turn, is over-coated by transparent water-repellent materials such as resin or silica sol (silica in water, [0049] per claims 13,17). The over-coating forms an impregnated, water-resistant portion of the cellular material about the applied information to prevent mottling and loss of clarity of the information by providing protection against the capillary flow/ oozing of applied catalyst solution through porous walls of the inner cells of the honeycomb in which catalyst solution is applied, as described in [0026-27]. The reference therefore anticipates claims 12,13,16-21 as provided.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1762

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claim 22 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 2002-221032.

The reference discloses a porous ceramic honeycomb, which has thereon information (alpha-numeric characters, bar codes, etc) which in turn is coated/ impregnated by transparent water-repellent materials such as resin or silica sol. The product would be the same as, or only slightly different from, that of claim 22. The patentability of a product is based upon the product itself as claimed, and not upon its method of production. If the product of a product-by-process claim is the same or obvious from a product of the prior art, it is unpatentable even though the processes of making may be different. It is the burden of Applicant to establish an unobvious difference between the claimed product and that of the prior art, MPEP 2113.

7. Claims 14,15 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-221032 and optionally in view of Hawley's.

JP 2002-221032 is cited for the same reasons previously discussed, which are incorporated herein. While specific particle sizes of the silica sol are not cited, sols are a type of colloid by definition, colloids having a particle size of 1-100 nm which encompasses the range of claim 15.

Art Unit: 1762

Hawley's is provided as support, although it remains the Examiner's position that this would have been known to one of ordinary skill. One of ordinary skill would have recognized the selection of finer particle sizes would have been advantageous to close off even fine sized open porosity to prevent capillary migration of detrimental catalyst fluids in the vicinity of the coated information, such that the selection of particle sizes of claim 15 would have been obvious. While the specific water: silica composition of the overcoat is not cited, it is the Examiner's position that one of ordinary skill would have developed the formula through routine experimentation to meet the requirements of the reference, namely to provide a resistant overcoat to protect the information for a cellular material of a given porosity/ pore size distribution.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to carry out the method of JP 2002-221032 using sols of sufficient particle size to form an impregnated, water-resistant portion of the cellular material to prevent mottling and loss of clarity of the applied information by providing protection from the capillary flow of subsequently applied catalyst solution.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 12,17,18,21,22 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 63-168517 (translation).

Art Unit: 1762

JP 63-168517 teaches that numerical symbols may be applied to porous cellular honeycombs of ceramic materials (page 3, bottom: cordierite, mullite, alumina, zirconia, titania, AT, etc per claim 16) by printing the number on the ceramic and applying thereto an aqueous transparent water-repellent “paint” (which inherently contains a solvent per claim 17) which, after drying, protects the numerals against penetration and degradation during subsequent immersion coating in catalyst slurry (page 3). Permeation would have been inherent given the porosity of the monoliths. Since the coating is inherently water-repellent and slurries are aqueous based (page 4, line 6), the coating inherently prevents the catalyst solution from exuding from the inside of the outer cell walls. The product by process claim of claim 22 would therefore be anticipated by the prior art which meets all the method limitations as well as anticipating the structural limitations of the product.

Claim Rejections - 35 USC § 103

10. Claims 13-15,19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 63-168517 (translation).

JP 63-168517 is cited for the same reasons previously discussed, which are incorporated herein. While the form of coating agent is not cited, nor is it limited to any conventional coating solution, thereby encompassing common and ordinary coating agent forms and particle sizes such as sols, solution, etc) per claims 13-15. similarly, JP 63-168517 points out the numerical symbols are printed, encompassing conventional stamp, ink jet and other printing method using conventional printing coating materials, e.g. inks, per claims 19-20. It would have been obvious to one of ordinary skill in the art at the time the invention was made to carry out the

Art Unit: 1762

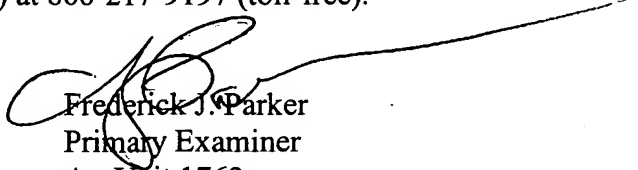
method of JP 63-168517 (translation) utilizing conventional printing methods and inks because they are well-known in the art for forming printed numerical symbols on substrates.

11. The prior art does not teach nor suggest a protective coating over the printed indicia, the coating comprising at least one ceramic powder of silica, alumina, zirconia, and titania. Claim 16 is objected to for depending from a rejected base claim in this set of rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571/272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Frederick J. Parker
Primary Examiner
Art Unit 1762

fjp